FORM PTO-1390 MODIFIED	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 4465-6

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5): **10/527,662** #5

INTERNATIONAL APPLICATION NO.	INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED
PCT/EP2003/050402	**11 September 2003**	**12 September 2002**

TITLE OF INVENTION

A METHOD FOR THE IDENTIFICATION OF DRUG TARGETS

APPLICANT(S) FOR DO/EO/US

VANDEKERCKHOVE et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The U.S. has been elected (Article 31).
5. A copy of the International Application as filed (35 U.S.C. 371(c)(2).
   a. ☐ is attached hereto (pages specification, claims & abstract (claims), sheets drawings).
   b. ☐ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(3)
   a. ☐ is attached hereto (pages specification, claims & abstract (claims), sheets drawings, page Certificate of Translation).
   b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
   d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3).
9. a. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4).
   b. ☐ Declaration was submitted to the International Bureau during International Phase (see copies of Declaration (page Form PCT/RO/101 and Form PCT/IB/371 and first page of printed publication acknowledging receipt thereof attached).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5).

Items 11 To 20 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
13. a. ☐ A FIRST preliminary amendment.
    b. ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ An Application Data Sheet under 37 C.F.R. § 1.76.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information. Amendment; Notification to Comply dated 11/2/2005; paper & computer readable copies of Sequence Listing

Mail Stop PCT

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
10/527,662	PCT/EP2003/050402	4465-6

☐ The following fees are submitted:

BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):			
21. ☐ Basic national fee ..... $300.00 (1631)/$150.00 (2631)	$		
22. ☐ Examination Fee..... $0 (1643/2643) ..... $200.00 (1633)/$100.00 (2633)	$		
23. ☐ Search Fee ..... $0 (1640/2640) ..... $100 (1641)/$50 (2641) ..... $400 (1642)/$200 (2642) ..... $500.00 (1632)/$250.00 (2632)	$		
TOTAL OF ABOVE CALCULATIONS	$	0.00	

☐ Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is **$250** for each additional 50 sheets of paper or fraction thereof.

Total Sheets	Extra Sheets		Number of each additional 50 or fraction thereof (round **up** to a whole number)		RATE		
0 -100	0	/50 =	0.00		**$0.00** (1681) **$0.00** (2681)	$	

Surcharge of **$130.00** (1617)/**$65.00** (2617) for furnishing the oath or declaration later than ☐ 30 months from the earliest claimed priority date (37 C.F.R. 1.492(e)). $

CLAIMS	NUMBER FILED		# EXTRA	RATE			
Total Claims		minus 20 =	0 X	$50.00 (1615)/	$25.00 (2615)		$
Independent Claims		minus 3 =	0 X	$200.00 (1614)	$100.00 (2614)		$
MULTIPLE DEPENDENT CLAIMS(S) (if applicable)				$360.00 (1616)/$180.00 (2616)			$ 0.00

Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s): One Month Extension $120.00 (1251)/$60.00 (2251); Two Month Extensions $450.00 (1252)/$225.00 (2252);Three Month Extensions $1020.00 (1253/$510.00 (2253); Four Month Extensions $1590.00 (1254/$795.00 (2254)	$	0.00
☐ Applicant claims small entity status. See 37 CFR 1.27.		
Processing fee of **$130.00** (1618), for furnishing the English Translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 C.F.R. 1.492(f). +		0.00
TOTAL NATIONAL FEE =	$	**0.00**
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). **$40.00** (8021) per property +	$	0.00
Fee for Petition to Revive Unintentionally Abandoned Application;**$1500.00** (1453) / **$750.00** (2453)	$	0.00
TOTAL FEES ENCLOSED =	$	**0.00**
	Amount to be: refunded:	$
	Amount to be Charged:	$

1028454

U.S. Application No.10/527,662; Atty Docket No.4465-6

a. ☐ A check in the amount of $0.00 to cover the above fees is enclosed.
b. ☐ Please charge my Deposit Account No. 14-1140 in the amount of $_____ to cover the above fees. A duplicate copy of this form is enclosed.
c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-1140. A duplicate copy of this form is enclosed.
d. ☐ **CREDIT CARD PAYMENT FORM ATTACHED.**
e. ☒ The entire content of International Application No. **PCT/EP2003/050402** and any U.S. and foreign application(s) corresponding thereto, and EP 02078801.4, referred to in this application is/are hereby incorporated by reference in this application.

NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b) must be filed and granted to restore the application to pending status.

CORRESPONDENCE ADDRESS

Direct all correspondence to:

☒ **Customer Number:** **23117**

Type Customer Number here

Telephone: (703) 816-4000
BJS:pp

B. J. Sadoff
NAME

36,663 **January 3, 2006**
REGISTRATION NUMBER Date

4465-6
BJS

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/527,662	Joel Vandekerckhove	4465-6

INTERNATIONAL APPLICATION NO.	
PCT/EP03/50402	
I.A. FILING DATE	PRIORITY DATE
09/11/2003	09/12/2002

23117
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

DOCKETED
CLT/MATTER # 4465-6
MAIL DATE NOV. 2, 2005
DUE DATE JAN 2 2006
FINAL DEADLINE JAN 2 2006
DOCKETED BY

CONFIRMATION NO. 7309
FORMALITIES LETTER
OC000000017351267

Date Mailed: 11/02/2005

NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov**

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

TAMALA D HOLLAND

Telephone: (703) 308-9140 EXT 209

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/527,662	PCT/EP03/50402	4465-6

FORM PCT/DO/EO/922 (371 Formalities Notice)

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/527,662
Source: PCT
Date Processed by STIC: 3-24-05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

ERROR DETECTED — SUGGESTED CORRECTION — SERIAL NUMBER: 10/527,662

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics / Wrapped Aminos — The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was received in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 ____ Invalid Line Length — The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino Numbering — The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 ____ Non-ASCII — The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length — Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing

6 ____ PatentIn 2.0 "bug" — A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 ____ Skipped Sequences (OLD RULES) — Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO X (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION SEQ ID NO X (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES" response to include the skipped sequences.

8 Skipped Sequences (NEW RULES) — Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
<210> sequence id number
<400> sequence id number
000

9 Use of n's or Xaa's (NEW RULES) — Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220> - <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 Invalid <213> Response — Per 1.823 of Sequence Rules, the only valid <213> responses are Unknown, Artificial Sequence, or scientific name (Genus/species). <220> - <223> section is required when <213> response is Unknown or Artificial Sequence.

11 Use of <220> — Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 ____ PatentIn 2.0 "bug" — Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n/Xaa — "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid

AMC - Biotechnology Systems Branch - 09/09/2003

PCT

RAW SEQUENCE LISTING DATE: 03/24/2005
PATENT APPLICATION: **US/10/527,662** TIME: 11:10:21

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF4\03242005\J527662.raw**

```
     5 <110> APPLICANT: Vlaams Interuniversitair Instituut voor Biotechnologie vzw
     9 <120> TITLE OF INVENTION: A method for the identification of drug targets
    13 <130> FILE REFERENCE: JVK-ChP-V127
C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/527,662
C--> 17 <141> CURRENT FILING DATE: 2005-03-11
    17 <150> PRIOR APPLICATION NUMBER: EP 02078801.4
    19 <151> PRIOR FILING DATE: 2002-09-12
    23 <160> NUMBER OF SEQ ID NOS: 8
    27 <170> SOFTWARE: PatentIn version 3.1
    31 <210> SEQ ID NO: 1
    33 <211> LENGTH: 5
    35 <212> TYPE: PRT
    37 <213> ORGANISM: Artificial Sequence
    41 <220> FEATURE:
    43 <223> OTHER INFORMATION: Peptide used in figure 3B and is acetylated.
    45 <400> SEQUENCE: 1
    47 Phe Ile Glu Gly Arg
    48 1               5
    51 <210> SEQ ID NO: 2
    53 <211> LENGTH: 11
    55 <212> TYPE: PRT
    57 <213> ORGANISM: Artificial Sequence
    61 <220> FEATURE:
    63 <223> OTHER INFORMATION: The peptide used in example 1.2: has an acetylated free
alpha-NH2
    64        -terminus and a free COOH-terminus.
    66 <400> SEQUENCE: 2
    68 Phe Ile Glu Gly Arg Ala Asp Ser Lys Ser Ser
    69 1               5                  10
    72 <210> SEQ ID NO: 3
    74 <211> LENGTH: 10
    76 <212> TYPE: PRT
    78 <213> ORGANISM: Artificial Sequence
    82 <220> FEATURE:
    84 <223> OTHER INFORMATION: The peptide in example 1.3; the Asp group carries an
aldehyde, th
    85        e first Ala is acetylated.
    87 <400> SEQUENCE: 3
    89 Ala Ala Ile Glu Gly Arg Tyr Val Ala Asp
    90 1               5                  10
    93 <210> SEQ ID NO: 4
    95 <211> LENGTH: 4
    97 <212> TYPE: PRT
    99 <213> ORGANISM: Artificial Sequence
```

Does Not Comply
Corrected Diskette Needed

What is the source of genetic material? (pg. 1-3)

What is the source of genetic material? Invalid response

What is the source of genetic material? Invalid response

Invalid response

See item #11 on error summary sheet

103 <220> FEATURE:

RAW SEQUENCE LISTING DATE: 03/24/2005
PATENT APPLICATION: **US/10/527,662** TIME: 11:10:21

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF4\03242005\J527662.raw**

105 <223> OTHER INFORMATION: The peptide in example 1.3; the Asp group carries an aldehyde, th
106 e Tyr is acetylated.
108 <400> SEQUENCE: 4
110 Tyr Val Ala Asp
111 1
114 <210> SEQ ID NO: 5
116 <211> LENGTH: 6
118 <212> TYPE: PRT
120 <213> ORGANISM: Artificial Sequence
124 <220> FEATURE:
126 <223> OTHER INFORMATION: The peptide used in example 1.5 and Lys carries 19-actin-50.
128 <400> SEQUENCE: 5
130 Ala Asp Ser Lys Ser Ser
131 1 5
134 <210> SEQ ID NO: 6
136 <211> LENGTH: 5
138 <212> TYPE: PRT
140 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
146 <223> OTHER INFORMATION: Peptide used in example 1.5; sequence from the compound peptide.
148 <220> FEATURE:
150 <221> NAME/KEY: MISC_FEATURE
152 <222> LOCATION: (4)..(4)
154 <223> OTHER INFORMATION: XAA can be any amino acid.
158 <400> SEQUENCE: 6
W--> 160 Ala Asp Ser Xaa Ser
161 1 5
164 <210> SEQ ID NO: 7
166 <211> LENGTH: 9
168 <212> TYPE: PRT
170 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
176 <223> OTHER INFORMATION: Peptide used in example 1.5; sequence derived from 19-27 actin se
177 quence.
179 <400> SEQUENCE: 7
181 Ala Gly Phe Ala Gly Asp Asp Ala Pro
182 1 5
185 <210> SEQ ID NO: 8
187 <211> LENGTH: 5
189 <212> TYPE: PRT
191 <213> ORGANISM: Artificial Sequence
195 <220> FEATURE:
197 <223> OTHER INFORMATION: The peptide is used in example 1.6: the NH2-terminal part of the
198 compound peptide; the Phe is acetylated.
200 <400> SEQUENCE: 8
202 Phe Ile Glu Glu Arg
203 1 5

Invalid response

See item #11 on error summary sheet.

Same error

Same error

Same error

Same error

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 03/24/2005
PATENT APPLICATION: **US/10/527,662** TIME: 11:10:22

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF4\03242005\J527662.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; Xaa Pos. 4

VERIFICATION SUMMARY DATE: 03/24/2005
PATENT APPLICATION: **US/10/527,662** TIME: 11:10:22

Input Set : **A:\sequence listing.txt**
Output Set: **N:\CRF4\03242005\J527662.raw**

L:17 M:270 C: Current Application Number differs, Replaced Current Application No
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0